

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

TWO NEW COTTON RATS FROM FLORIDA

BY ARTHUR H. HOWELL.

These new cotton rat descriptions were found with the late Arthur H. Howell's partly completed manuscript on Florida mammals.—Viola S. Schantz.

Sigmodon hispidus floridanus, new subspecies.

FLORIDA COTTON RAT.

Type.—Collected at Canal Point, Palm Beach County, Florida, March 1, 1936, by A. H. Howell; female adult, skin and skull, No. 261624, U. S. National Museum (Biological Survey's collection); original number 2818.

Range.—Greater part of central Florida (except coastal beaches), from Orange Lake south to the southern side of Okeechobee Lake.

External characters.—Coloration of upper parts darker (more blackish) than in *littoralis*; sides less heavily washed with buff; under parts more whitish (less buffy). Compared with *S. h. hispidus* of northern Florida and the Carolinas it is much darker and more blackish (less buffy).

Cranial characters.—Skull similar to that of *littoralis*; longer and relatively narrower across zygomata than that of *hispidus*.

Color.—Upper parts mixed black, grayish white, and pale buff; sides mixed grayish white and buff, the buff rather inconspicuous; hind feet neutral gray; tail dull blackish above, slightly paler beneath; under parts grayish white.

Measurements.—*Type* (adult female): Total length, 302; tail vertebrae, 112; hind foot, 32. *Skull*: Occipitonasal length, 38.1; zygomatic breadth, 21; cranial breadth, 15.9; length of nasals, 15; maxillary tooth row, 6.8.

Remarks.—Cotton rats are probably the most abundant of Florida mammals. They inhabit a variety of terrain but are most numerous in neglected fields grown up to briars and broomsedge, or in palmetto scrub. Although not as aquatic in habit as the rice rats (*Orzomys*) they often invade the marshes or mangrove swamps and are frequently found in moist woodland. On the coast they are said to feed on mangrove shoots.

When pineapples were grown extensively in Florida these rats proved to be a serious pest. They flocked into the plantations and cut the plants off near the surface in order to reach the roots, which they consumed. They also destroyed the fruit by biting a hole in one side and

tunnelling inwards, leaving only an empty shell. At present they cause serious damage to sugarcane in the big plantations around Okeechobee Lake, where they often become very numerous and where hundreds are killed by the use of strychnine bait.

These rats are partly diurnal, being frequently seen running about in daytime in grassy situations or even crossing the highways.

Specimens examined.—Total number, 155, from the following localities in Florida: Canal Point, 4; Canaveral, 2; Chester Shoal, 1; Citrus Center, 1; Eden (St. Lucie County), 1; Kissimmee, 44; Kissimmee River (Osceola County), 4; Labelle, 2; Lake Harney, 33; Lake Kissimmee, 2; Lake Mobley (Hillsborough County), 1; Mullett Lake (Orange County, 2; Ocala National Forest, 5; Okeechobee, 2; Ponce Park, 1; Port Mayaca, 5; Port Richey, 6; Ritta, 9; Sebastian, 9; Sebring, 1; Silver Springs, 2; Sunbeam (near Titusville), 1; Titusville, 15; and Wilson, 2.

Sigmodon hispidus insulicola, new subspecies.

INSULAR COTTON RAT.

Type.—Collected on Captiva Island, Florida, February 25, 1939, by W. H. Osgood; male adult, skin and skull, No. 48679, Field Museum of Natural History; original number 7057.

Range.—Captiva Island, Sanibel Island, Chadwick Beach (near Englewood).

External characters.—Upper parts paler and more grayish (less blackish) than in *floridanus* from the central portion of Florida; under parts more whitish; tail averaging paler both above and below; hind feet averaging paler; size smaller. Compared with *spadicipygus* from Cape Sable it is about the same size, but colors much paler and more grayish (less brownish). Compared with *littoralis* from the east coast beaches, opposite Micco, it is smaller, more grayish on the upper parts and more whitish (less buffy) beneath. Compared with *exsputus* from the Lower Florida Keys *insulicola* is decidedly more grayish, lacking the strong buffy suffusion on the upper parts shown by *exsputus*. The underfur is of a darker shade of neutral gray.

Cranial characters.—Skull much smaller and relatively shorter than that of *littoralis* or *floridanus*; similar in size to that of *spadicipygus*.

Color.—*Type*: Hairs of upper parts tipped with buffy white over dark neutral gray underfur, producing a grayish effect; rump shows a stronger suffusion of pale buff; sides pale pinkish buff; feet grayish white; tail hair brown above, whitish beneath; under parts creamy white.

Some specimens from Sanibel Island are slightly more suffused with buff on the back and sides, but all are paler than in *floridanus*.

Measurements.—*Type* (male adult): Total length, 274; tail vertebrae, 117; hind foot, 31. Average of 6 adult males, from Sanibel Island (5), and Captiva Island (1): 278; 114; 31.7. *Skull*: Average of 4 adult males from same localities: Occipitonasal length, 35.9 (35.2–36.9); zygomatic breadth, 20.3 (20–21); cranial breadth, 15.6 (15.1–15.6); length of nasals, 14.3 (14–14.9); maxillary tooth row, 6.7 (6.7–7).

Remarks.—The range of this pale, gray race of the cotton rat is not

known in detail; it seems to be confined mainly to islands or beaches on the southwest coast of Florida. Specimens from the mainland at Englewood are somewhat intermediate in color between *insulicola* and *floridanus*, but are best referred to the former.

The writer is indebted to Dr. Wilfred H. Osgood for calling attention to this form and for permission to describe it.

Specimens examined.—Total number, 21, from localities as follows: Florida: Captiva Island, 2¹; Sanibel Island, 10¹; Chadwick Beach (near Englewood), 3; Englewood, 5; Pine Island (Lee County), 1.²

Some specimens from Sanibel Island are slightly more suffused with buff on the back and sides, but all are paler than in *floridanus*.

Measurements.—*Type* (adult female): Total length, 302; tail vertebrae, 112; hind foot, 32. *Skull*: Occipitonasal length, 38.1; zygomatic breadth, 21; cranial breadth, 15.9; length of nasals, 15; maxillary tooth row, 6.8.

Remarks.—The range of this pale, gray race of the cotton rat is not known in detail; it seems to be confined mainly to islands or beaches on the southwest coast of Florida. Specimens from the mainland at Englewood are somewhat intermediate in color between *insulicola* and *floridanus*, but are best referred to the former.

The writer is indebted to Dr. Wilfred H. Osgood for calling attention to this form and for permission to describe it.

Specimens examined.—Total number 21, from localities as follows: Florida: Captiva Island, 2¹; Sanibel Island, 10¹; Chadwick Beach (near Englewood), 3; Englewood, 5; Pine Island (Lee County), 1.²

United States Department of the Interior, Fish and Wildlife Service, Washington, D. C.

¹ Field Mus. Nat. Hist.

² Amer. Mus. Nat. Hist.